

## CLAIMS

1. A method comprising:

identifying data in a first version object base; and,

5 copying the data to a second version object base, wherein said act of copying comprises, at least in part, establishing a hard-link in the second version object base which corresponds to a hard-link in the first version object base.

10 2. The method as recited in claim 1, wherein said act of identifying comprises identifying a first element in the first version object base, the first element being associated with a first unique identification number.

15 3. The method as recited in claim 2, wherein said act of copying comprises creating a second element having a second unique identification number but otherwise being identical to the first element.

20 4. The method as recited in claim 1, wherein said act of copying comprises creating a second element in a first sub-directory of the second version object base which corresponds to the first element in the first version object base.

5. The method as recited in claim 4, wherein said act of establishing comprises obtaining a path to the second element in the second version object

base via the unique identification number of the first element in the first version object base.

6. The method as recited in claim 5, wherein said act of establishing  
5 comprises obtaining a path to the second element in a first sub-directory of the second version object base from a second sub-directory of the second version object base.

7. The method as recited in claim 6, wherein said act of obtaining a  
10 path comprises:

      checking-out a parent directory of the first sub-directory of the second version object base in which the second element resides;  
      moving the second element to a second sub-directory of the second version object base; and

15       unchecking-out the parent directory.

8. The method as recited in claim 6, wherein said act of obtaining a path comprises:

      moving the second element to a second sub-directory of the second version object base;  
      setting a flag in the second sub-directory;  
      checking-in a latest version of the second sub-directory;  
      checking-out the latest version of the second sub-directory;

moving the second element back to the first sub-directory of the second version object base; and,

unchecked-out the latest version of the second sub-directory.

5       9.     The method as recited in claim 8, wherein said act of setting comprises setting the flag in an object representing the second subdirectory.

10      10.    A method comprising:

                walking a source version object base; and,

10      maintaining state and access to elements that appear to have been removed from the source version object base.

11      11.    The method of claim 10, wherein said act of maintaining comprises maintaining state and access to elements that appear to have been removed from versions of directories of the source version object base.

12      12.    The method of claim 10, wherein said act of maintaining comprises copying data to a target version object base from the source version object base.

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13.     The method of claim 12, wherein said act of maintaining comprises establishing a link between a first parent directory of a target version object base and a second offspring directory of the target version object base.

14. The method of claim 12, wherein said act of copying data comprises copying data associated with a unique identification number.

15. The method of claim 14, wherein said act of copying comprises, 5 upon encountering a first occurrence of the data associated with a specific unique identification number, copying the data in the second version object base, and upon subsequently encountering the data, creating a link to first occurrence.

10 16. A method comprising:

obtaining a path to an element in a target version object base via an element identification number associated with the element;

checking-out a parent directory of the element;

15 moving the element from a first subdirectory to a second subdirectory; and,

unchecking-out the parent directory.

17. The method of claim 16, wherein said act of moving comprises moving the element to a second sub-directory comprising a temporary holding 20 subdirectory.

18. The method of claim 16, wherein said act of moving comprises moving the element to a second sub-directory comprising a lost+found subdirectory.

19. A method comprising:

walking a source version object base; and,

recreating elements of the source version object base in a target  
5 version object base, wherein said recreating comprises, at least in part,  
establishing hard-links in the target VOB.

20. The method of claim 19, wherein said act of recreating comprises  
forming multiple version object base sub-directories in the target version object  
10 base.

21. The method of claim 19 further comprising compiling a  
translation table of element identification numbers in the target version object  
base which correspond to element identification numbers in the source version  
15 object base.

22. A processing system comprising:

a first data storage media configured to store data associated with  
a first version object base;

20 a second data storage media configured to store data associated  
with a second version object base; and,

an application program configured to copy data from the first  
version object base to the second version object base and to cause at  
least some of the data associated with the second version object base to

be stored in a temporary holding directory to maintain state and access  
to the data.

23. The system of claim 22, wherein the first data storage media and  
5 the second data storage media comprise two different data storage media.

24. The system of claim 22, wherein the temporary holding directory  
comprises a lost + found directory.

10 25. The system of claim 22, wherein the application is configured to  
form a hard-link in the second version object base which corresponds to a hard-  
link in the first version object base by accessing data in the temporary holding  
directory.